

**REMARKS**

Applicants submit that by the present Amendment and Remarks, this Application is placed in condition for immediate allowance. As will be apparent, no new matter has been introduced and no new issue has been generated, as the limitation from claim 6 and has been incorporated into claim 1 and claim 6 cancelled, and objectionable language deleted from claim 9. Accordingly, entry of the present Amendment and favorable consideration is solicited pursuant to the provisions of 37 C.F.R. §116.

Claims 1 through 5 and 7 through 12 are pending in this Application. As previously pointed out, the limitation from claim 6 has been incorporated into claim 1, claim 6 cancelled, and objectionable language deleted from claim 9. Manifestly, the present Amendment does not generate any new matter issue or any new issue for that matter. Accordingly, entry of the present Amendment and Remarks, and favorable consideration are solicited pursuant to the provisions of 37 C.F.R. §116.

**Claim 9 was rejected under the second paragraph of 35 U.S.C. §112.**

In the statement of the rejection, the examiner again asserted that the recitation “WC - based” renders the claimed invention indefinite. This rejection is traversed.

Applicants do not agree with the Examiner’s position. However, in an effort to expedite prosecution, the language identified as objectionable has been deleted, thereby overcoming the stated basis for the rejection. Accordingly, withdrawal of the rejection of claim 9 under the second paragraph of 35 U.S.C. §112 is solicited.

**Claims 1 through 12 were rejected under 35 U.S.C. §102(b) for lack of novelty as evidenced by Hitachi Tool.**

In the statement of the rejection the Examiner adhered to the reasons of record, i.e., that “Hitachi Tool discloses the claimed substrate having the claimed inner layer with the outer layer including the claimed amount of chlorine”. This rejection is traversed.

Applicants again stress that the factual determination of lack of novelty under 35 U.S.C. §102(b) requires the identical disclosure in a single reference of each element of a claimed invention, as those elements are set forth in the claims, such that the claimed invention is placed into the recognized possession of one having ordinary skill in the art. *Therasense, Inc. v. Becton, Dickinson and Company*, 593 F.3d 1289 (Fed. Cir. 2010); *Praxair, Inc. v. ATMI, Inc.*, 543 F.3d 1308, (Fed. Cir. 2008); *Dayco Prods., Inc. v. Total Containment, Inc.*, 329 F.3d 1358 (Fed. Cir. 2003); *Crown Operations International Ltd. v. Solutia Inc.*, 289 F.3d 1367 (Fed. Cir. 2002); *Candt Tech Ltd. v. Resco Metal & Plastics Corp.*, 264 F.3d 1344 (Fed. Cir. 2001). Further, as a matter of procedural due process of law, the Examiner is required to specifically identify where in an applied reference is alleged to disclose each and every feature of a claimed invention, particularly when such is not apparent as in the present case. *In re Rijckaert*, 9 F.3d 1531 (Fed. Cir. 1993); *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452 (Fed. Cir. 1984). Moreover, there are fundamental differences between the claimed cutting tool and the cutting tool disclosed by Hitachi Tool that scotch the factual determination that Hitachi Tool discloses, or even remotely suggests, a cutting tool identically corresponding to that claimed.

Specifically, independent claim 1 is directed to a cutting tool having an outermost layer formed from aluminum nitride or aluminum carbonitride having chlorine for improved lubricity. Further, independent claim 1 now specifies that the outermost layer is no more than  $\frac{1}{2}$  the total thickness of the inner layer, thereby providing a good balance between wear resistance and

lubricity. It is not apparent wherein Hitachi Tool discloses such a feature and combination of properties.

Further, in accordance with the claimed invention, chlorine is introduced by the combination of a thermal CVD method and hydrogen chloride reaction gas. The Examiner cannot ignore this claim requirement, particularly under the circumstances of this case, because Hitachi Tool clearly teaches away from the claimed invention by disclosing that increasing the chlorine content in a layer reduces the life of a tool (paragraph [0024]). Further, Hitachi Tool also teaches away from the claimed invention by seeking to exclude chlorine from the outermost layer to improve hardness. As previously argued, the limitation requiring introduction of chlorine using HCl, albeit processing in nature, cannot be ignored because it necessarily impacts the final product by introducing chlorine, thereby further distinguishing the claimed cutting tool over Hitachi Tool. *In re Garnero*, 412 F.2d 276 (C.C.P.A. 1969). In this respect, Applicants again refer to the objective evidence appearing at Table 1 of the written description of the specification, AlN\*2, and in Table 2, Nos. 1-4. Such evidence cannot be ignored. *In re Soni*, 54 F.3d 746 (Fed. Cir. 1995); *In re Margolis*, 785 F.2d 1029 (Fed. Cir. 1986).

Typically, one of skill in the art would use AlCl<sub>3</sub> gas as a reaction gas in a thermal CVD method to obtain an AlN layer or an AlCN layer. However, an AlCl<sub>3</sub> gas slightly introduces chlorine to the layer. Hence, the present invention uses hydrogen chloride gas as a reaction gas to introduce chlorine. Hitachi Tool also uses AlCl<sub>3</sub> gas as a reaction gas, and thereby intends not to introduce chlorine of more than 2 mass % to the layer. Consequently, Hitachi Tool never teaches or suggests the combination of a thermal CVD method and hydrogen chloride as a reaction gas.

The above argued functionally significant differences between the claimed cutting tool and the cutting tool disclosed by Hitachi Tool undermine the factual determination that Hitachi

Tool discloses a cutting tool identically corresponding to that claimed. *Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics Inc.*, 976 F.2d 1559 (Fed. Cir. 1992); *Kloster Speedsteel AB v. Crucible Inc.*, 793 F.2d 1565 (Fed. Cir. 1986). Applicants, therefore, submit that the imposed rejection of claims 1 through 12 under 35 U.S.C. §102(b) for lack of novelty as evidenced by Hitachi Tool is not factually viable and, hence, solicit withdrawal thereof.

Based upon the foregoing, it is apparent that the imposed objection and rejections have been overcome, and that all pending claims are in condition for allowance. Favorable consideration is therefore solicited. If any unresolved issues remain, it is respectfully requested that the Examiner telephone the undersigned attorney at 703-519-9954 so that such issues may be resolved as expeditiously as possible.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 504213 and please credit any excess fees to such deposit account.

Respectfully Submitted,

DITTHAVONG MORI & STEINER, P.C.

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Date

/Arthur J. Steiner/  
Arthur J. Steiner  
Attorney/Agent for Applicant(s)  
Reg. No. 26106

918 Prince Street  
Alexandria, VA 22314  
Tel. (703) 519-9951  
Fax (703) 519-9958